How to Read this Report

This report uses a number of epidemiological methods and technical terms to analyze data on childhood injury. The following definitions and explanations will assist the reader.

Epidemiology

Epidemiology is the study of the distribution and determinants of health conditions in a specified population and the application of this study to the control of health problems.

Rate per 100,000

Using the Washington State childhood death rate as an example, this is the total number of deaths to children in a specified time period divided by the total population of children in Washington State in that same time period, and then multiplied by 100,000. The resulting rate is the number of deaths occurring in a group of 100,000 children in Washington State during the specified time period.

Rates are useful because they account for the fact that the number of injuries depends in part on the number of people in the population of interest. For example, from 1997-2001, there were 40 injury-related deaths among children 0-17 years old in Kitsap County and 216 such deaths in King County during the same time period. The higher number of childhood injury-related deaths in King County could be explained by the higher number of children who live in King County. The rates of childhood injury-related death in these two counties (12.8 per 100,000 in Kitsap County and 11.0 per 100,000 in King County) is similar because the rate accounts for the total number of children in the population of each county.

Specific Rates

Age specific rates are rates calculated for a specific age group; the numerator and denominator refer to the same age group.

Gender specific rates are rates calculated for each gender separately; the numerator and denominator refer to the same population.

Region specific rates are rates calculated by region of the state; the numerator and denominator refer to the same population.

Age-adjusted rates are rates that have been adjusted to minimize the effects of differences in age composition when comparing rates for different populations. Age-adjusted rates were used in this report when comparing children who live in urban settings to those in rural settings. This was necessary because there are more young children (ages 0-4) and fewer teens (ages 15-17) in urban settings, and visa versa in rural settings. The age-adjustment corrects for this difference.

Age-adjustment was considered for the time trend analysis, however there was very little difference in age composition for Washington children between 1981 and 2001. Therefore, the age adjusted time trends would have been very similar to the unadjusted trends.

Significant Trend

For the time trend analyses in this report, the "joinpoint" methodology developed by the National Cancer Institute was used. Information on this method is available at srab.cancer.gov/joinpoint. A significant trend indicates that the change in the rate is not random and that the increase or decrease is likely to be occurring in a population. The significance level used for a significant trend is $p < 0.05$.

Bar Charts with Rates and Confidence Intervals

The following is important to note when reading the bar charts in this report. The top of the bar represents the actual value of the rate, and the numerical value on top of the bar is the rate. The black line marked with two endpoints at the top of each bar represents the 95 percent confidence interval of the rate. We expect the true rate to fall within the confidence interval 95 percent of the time. When comparing two rates with each other and the confidence intervals overlap, the rates are not considered to differ statistically from each other.

Preventability (Child Death Review Definition)

Local CDR teams used the following guidance when determining preventability:

"If a reasonable medical, educational, social, legal or psychological intervention could have prevented this death from occurring, the death is regarded as preventable. A "reasonable" intervention is one that would have been possible given the known conditions or circumstances and the resources available." The preventability data in this report excludes missing data from the denominator for the following chapters:

- Suffocation – one child or 1 percent.
- Firearm – three children or 5 percent.
- Motor vehicle occupant – 13 children or 10 percent.
- Fire/burn – three children or 12 percent.